2020 Mars Express –
Towards the Future Children’s and Young Adult’s Library

Elisabet Håkansson
Library Consultant, Children and School Library Service, Skåne County Library, City of Malmö, Sweden

Lo Claesson,
Library Consultant, Jönköping County Library, City of Jönköping, Sweden

Anna Gullstrand
Library Consultant, Västra Götaland Regional Library of, City of Göteborg, Sweden

“When we employ children’s librarians, we don’t ask them if they like books – we ask them if they like children”
Nick Buron, Queens Public Library, New York

Meeting:
155. Libraries for Children and Young Adults
Simultaneous Interpretation:
Not available

WORLD LIBRARY AND INFORMATION CONGRESS: 74TH IFLA GENERAL CONFERENCE AND COUNCIL
10-14 August 2008, Québec, Canada
http://www.ifla.org/IV/ifla74/index.htm

Summary
What should public libraries do in order to be perceived as more interesting, creative and welcoming for children and young adults: places that stimulate reading?

The main purpose of the First Stage of the 2020 Mars Express Project was to find methods of participation for children and young adults in developing and designing the library room of their local library. In the Second Stage emphasis was placed on finding new techniques that could strengthen language skills and stimulate the joy of reading.

The Mars Express project is based on Howard Gardner’s educational theories about multiple intelligences.

Cooperation with Swedish universities has played an important role in the development of the Second Stage of the project.
2020 Mars Express First and Second Stage

The third and last year of the 2020 Mars Express project was completed early in 2008. The initial question was what must public libraries do in order to develop into more interesting, creative and welcoming libraries for children and young people - to be perceived as places that stimulates reading.

An agenda for libraries

- Library staff should listen to children and young people before enacting changes.
- It is crucial that library staff are continually informed and updated concerning the daily life of children and young people.
- If we want to establish relationships with children and young people we have to know how they communicate.
- Library staff on duty must like children and young people, really see them and say Hello! when they enter the library.
- Working with library development is a process that must take time.
- Important to try new ideas – have the courage to fail - and try again.
- Engaging local politicians is essential when it comes to initiating changes.
- Library staff must be aware of the immediate environment and be able to adapt the library services they offer to local and global phenomena.
- Howard Gardner’s theory of multiple intelligences should be considered important when planning library programs and library areas focusing on creativity and learning.
- The needs of patrons must be considered when developing the library environment and its furnishing. Special attention should be given to lightning and accessibility.
- Technology in the library context has a significant potential when it comes to creativity, learning and play. Cooperation with Science Centres and museums provides numerous possibilities.
- A library can host many activities without losing its identity
- Collaboration with universities, research and educational institutions helps to develop library services. It also spreads the idea that the library can be an arena for development and new ways of thinking.
- Cooperation with Architects, Interaction Designers, Stage Designers or other professionals is very rewarding; it allows libraries explore the full potential of their professional competence. Other perspectives can bring new thinking to library operations and utilization of library space.
- The library can promote language and reading by letting the written, spoken and electronic word exist side by side.

Introduction

The source of inspiration to the project 2020 Mars Express was found already in spring 2003 when the Swedish library consultants Lo Claesson, Elisabet Håkansson and Ewa Kollberg went to the Netherlands to study the project “Bibliotheken 2040”. Howard Gardner’s theory of multiple intelligences was also going to form a theoretical platform for the project. Wanting to do something in the same spirit as the Dutch, a project application was made. The Swedish Ministry of Cultural affairs subsequently approved the application and allocated funds to the value of 560,000 SEK (90,000 US dollars) for the First Stage - and later 200,000 SEK (32,000 US dollars) for the Second Stage. The three County Libraries of Skåne, Jönköping and Västra Götaland collaborated and the three Library Consultants mentioned
above - with the addition Anna Gullstrand, Västra Götaland, in the Second Stage - have been sharing the project direction. Participants were – in the First Stage – Children’s librarians and Library Directors from 15 municipalities. In the Second Stage, groups consisting of Children’s librarians, Library Directors and IT librarians from six municipalities (two from each county), participated. A condition for being in the project was that participating municipalities had to be renovating an existing library or building a new one. The First Stage started spring 2005 and finished in September 2006. The Second Stage was finished in February 2008.

**Background**
The main purpose of the First Stage of the project was to find methods of participation for children and young adults in developing and designing the library room of their local library.

During the latter part of The First Stage the Regional Library of Skåne initiated cooperation with the Arts and Communication Interaction Design at Malmö University and the Department of Informatics at Lund University. The work done in cooperation focused on using RFID, light and textiles in the Children’s department of Malmö Public Library. County Library of Jönköping had begun collaboration with School of Engineering Jönköping University Lighting Design department concerning development of the room and County Library of Västra Götaland with the Department of Interaction Design at University of Chalmers dealing initially with RFID applications. The potential in these alliances was something that we wanted to explore and further develop during the Second Stage.

During the First Stage we had learnt about examples of how university institutions worked closely together with children and young people in order to develop research and technology. The Intergenerational Design Teams at University of Maryland; Human Computer Interaction Lab was an example of that. HCIL have for instance developed the International Children’s Digital Library with children’s books from the whole world in facsimile. We wanted to go there to learn more about it.

In an article in a Swedish library journal “Ikoner” Library Director Emeritus Sven Nilsson describes the new media landscape for young people as a multitechnical arena for creativity and search for identity. This is done through music, food, clothes, literature etc. “The things they expect to find on the market and among friends they expect to find in the library. If they don’t it is the libraries loss. Young people don’t waste their attention with environments that don’t match their needs.”

Another of our questions was how library staff dealt with this.

**Howard Gardner**
Howard Gardner’s theory of multiple intelligences has also played an important role during the project years. Motivation, creativity, involvement and capacity of learning increases when as many as possible of a person’s intelligences are applied. When planning a library there is a lot to learn and adapt to concerning these theories. According to Howard Gardner intelligence is much more than IQ, it is the ability to solve problems or to create products, that are valued within one or more cultural settings. He endeavoured to define intelligence in a much broader way than psychometricians. Gardner established several criteria for defining intelligence.
We have grouped some suggestions of what a library can host from workshops, focus groups, questionnaires etc from the project period according to Howard Gardner’s different kinds of intelligence.

**Words (linguistic intelligence)**
- Reading room
- Fairytale on the walls
- Book automat
- Reading on big TV screen
- Homework area
- Film room
- Manga area
- Writing workshop
- Reviews

**Numbers or logic (logical-mathematical intelligence)**
- Secret room, you have to crack a code to enter.
- Computer rooms, lots of video and computer games.
- Chess
- Robots

**Pictures (spatial intelligence)**
- Circular forms
- Warm colours
- Soft materials
- Big windows
- Towers
- Roof like a mosque
- Hologram
- Balconies
- Space
- Paintings
- Virtual reality

**Music (musical intelligence)**
- Music room, where you could play or listen to music
- Instruments for lending
- Disco
- Live music

**Self-reflection (intrapersonal intelligence)**
- Silent spaces
- Soft music
- Reading room
- Theatre
- Water beds
- Attic with a glass roof, where you can watch the moon and the stars
- Fireplace
- Sofas
Physical experience (bodily-kinaesthetic intelligence)
- Library in connection with swimming hall or sports shop
- Ladders to climb
- Lounge with bed
- Trampoline
- Climbing wall
- Slide
- Skateboard ramp
- Laser-dome
- Adventure room
- Table tennis, billiards
- Playroom, playground outside

Social experience (interpersonal intelligence)
- Room where you can chat with your mates
- Room where you can stay over night
- Cushion room
- Room for boys and room for girls
- Stage
- Cafeteria
- Teddy bears
- Sign at the entrance saying “welcome”
- Funny, nice, helpful librarians
- Photos of the staff

Experience in the natural world (naturalist intelligence)
- Kitchen where you can cook and make cookies
- Aquarium
- Plants
- Stones
- Animals (stuffed and real)
- A room where you can leave your dog
- Fountain
- World map
- Smells good

Background summary
With our questions and the theories above as a background and children and young people as the target group we wanted to find out:

- How can interaction with the library space develop?
- How can you strengthen language and stimulate the joy of reading with new techniques?
- How can you develop meaningful participation for children and young people when it comes to developing the library space?
**Project goals**

We wanted to

- Create technical models, easy to use in real life and connected to various forms of culture.
- Through invisible ubiquitous techniques support language development and the joy of reading.
- Further develop technique for children and young adults together with universities etc.
- Further develop and spread models and methods that had been proved successful during the project period.
- Initiate a new way of thinking and a real work of change when it comes to libraries for children and young people.

**Project methods**

- Study tours and visits in Sweden, Denmark, Germany, the US, etc.
- In collaboration with universities and other institutions experiment with new techniques, try out prototypes etc.
- Cooperate with other professionals outside the library sphere.
- Workshops and focus groups with children and young children.
- Reflective and process based way of working.
- Develop the web site www.2020marsexpress.se - with the aim to let it be a resource after the project period.
- And last but not least – working together with children and young people, as follows:

**Methods with children and young people**

What we wanted to find out was:

*How do we keep children and young adults using the library in the future?*

By using workshops and other methods rather than asking the children and young adults directly, we wanted to get the answers that are not the answers they think we expect. It’s a way of opening their minds.

We have been working with children and young people, aged four until seventeen years old.

**Workshops**

We have carried out different kinds of workshops. Most of them were led by a pedagogue – culture pedagogue or architecture pedagogue. Some workshops have been under the guidance of a stage designer or an artist.

The pedagogues have been using different tools like drama, role play, Power Point, painting, collage, drawing, writing and building models.

To be able to follow the children’s lines of thought is important.

To think about the future in an abstract way requires useful entries, especially for small children. One of the participating librarian’s points out that starting to talk about colours and atmosphere turned out to be a good method to help the children let go of the present and think about the future.

Three classes with thirteen year old pupils have taken part in the entire process from idea to realization. They have been talking about the room and architecture, have been making sketches and models and they have done carpentry and painted walls and furniture.
For most of the participating pupils this was a positive experience. But it is then a challenge to convey this to those who did not think so, to visiting classes and other customers.

Three classes together is a rather large group to work with. A smaller group is preferable. It is also very important that the entire process has the support of the whole working team. The pupils and the stage designer as well as the library staff.

In this case they have used flexible walls (like in theatre). The furniture is second hand or from IKEA. The materials are not always very durable; a fact that raises the question of how to manage that kind of library room. Using cheap material could also be considered as an advantage. It’s not very expensive and the furniture is rather easily renewable.

Engaging a stage designer was rather expensive, but it is hard to do this kind of work without professional leadership. Supervision of the pupils is required if they are doing practical work in the library.

We have tried to reach children widely spread, geographically and socially. Sometimes we have used certain preschool or school classes.

**Observations and study visits**

Children have been studying maps of the library and photos of other libraries and buildings and photos of details like stairs, windows and huts. Then they have been following visitors or patrons in the library to see what they came to do at the library. Allowing children to act as observers means other perspectives than traditional questions and expected answers. The librarian can look at the library with other eyes as well.

In another municipality teenagers together with the architect visited the cultural centre. They reflected on following matters: What can you do at the library? What can’t you do at the library? What does it look like? What can you improve?

The result was proposals for entirely new types of rooms that probably neither the architects nor librarians would suggest when building a new library.

A group of five-year-old children made study visits to official spots in the municipality such as the city hall, football stadium and a museum with modern architecture. They were then requested to find and show their favourite spot in the museum. They talked about the visits, painted and made models.

Letting children meet different surroundings, different rooms and then elicit what attracts them is a better method than interviews and better than letting them draw and describe it without proper preparation.

**Interviews**

We did conduct interviews as well, and we tried to prepare the interviewees properly. We conducted interviews with five-year-old children as well as with seventeen-year-old students.

The interviews with the younger children were done in cooperation with a preschool teacher and a special pedagogue.

We were curious to find out if, - as with other groups of children this age - they could imagine something about which they didn’t have the faintest idea. To judge by the answers, they are able to do that or maybe they are connecting experiences they have made from other situations to questions about the library. And that is actually what we wanted them to do.

The participating teenagers came from two different programs in Senior High School,
The students met with librarians, they watched a Power Point Presentation on different library rooms and theories on development in the future and had a discussion. After that some of the students were interviewed and filmed. Probably the preliminary presentation was conducive to making the answers more varying and free. The students at the practical programs were more open minded in their thinking than the students from theoretical programs, who tended to consider the library as a place that should be used for studies. 
If such interviews are well prepared in a way that stimulates the creativity, this method could be of great use. But the filmed material tends to be huge and editing takes a lot of time. 

Children making interviews 
The librarian has together with architects invited children to create a future library in a new context. Their library was a small branch library. This library became their starting point. They asked their parents, grandparents, family and friends how they wanted the library to be and what other services should there be found in the neighbourhood. These answers melted together with their own wishes and ideas of a new library into models made by the children themselves. 

Book talk as a starting point 
The thought was to make the children think of future technology. The theme was Library on Mars. The books were all about the future. After listening to the book talk, the children made drawings and models of the future library and future library technology out of cloth or wood in handicraft classes. 

Photo book 
The Child and Youth Leader Programme at a Senior High School was engaged because this programme provides the foundation for work within the pedagogical and professional area of the youth sector. How would these students plan a library for children? How did they experience the library themselves? 

Initially, most of the teachers were very enthusiastic and they planned to integrate "future library" in all subjects, even in Physical education. The intention was as well that the students should make a virtual model of the future library. But it turned out to be mostly within the subject Swedish that they were working with the project. The made a play and Big Books for the preschool children.
The project was very long-drawn-out and the librarian felt that it was hard to get all the teachers to cooperate. It became easier when they defined the project to one subject and laid focus on the project under a limited time. It was an exciting initiative but such a big, trans-boundary project demands very much time, preparation and interest from everybody involved.
As an account of this project the students made a photo book.

Focus groups 
A group of children or teenagers focus on one question, e.g. What is of importance for me to feel comfortable at the library? The participants of the group formulated answers, factors that could be marked on a scale. Then they weighed one third of the factors by importance. Many unexpected things were experienced as important.

Questionnaires 
Students from the Interaction Design Educations have mostly used questionnaires when asking children. After having assembled the results they have started sketching prototypes.
Then they have met with the groups and showed them their proposals. They adjusted the sketches and prototypes after feedback from the children. As Interaction Designers say: - Discussion should always originate from within our target group and we believe that development is best achieved in cooperation with our users.

The results gathered by using these methods mentioned could be used as general knowledge. If you want to work with a certain library though, it is always better to ask children and young people that are users of that specific library. It’s essential to have that connection with your own users and patrons. It is important that they feel that you bother to ask them – and listen to the answers.

We have worked with a group of young people with special needs and different functional limitations as well. The result of this work showed that this is a very creative group, who are very aware of their own needs. They have got ideas of how you can use the library as a place where you can download things, lend other things than books etc.

Finally; it is always important to find skilled leaders and pedagogues who can cooperate with the library staff in teamwork. Some methods call for considerable resources. Sometimes you need to find something out at a more reasonable cost or effort. Then some of the methods and tools mentioned above can be combined. Perhaps the results won’t always be optimal, but they could still be useful as a part of a process.

**University contacts**
Cooperation with universities and other educational institutions in Malmö, Lund, Jönköping and Göteborg etc., has been an important and stimulating part of the project work and an important development element especially in the Second Stage of the project. The university field of Interaction Design proved to be a very interesting partner.

One definition of Interaction Design is;
“Interaction Design concerns the interaction between people and products in which information technology is a central component. This can, for instance, be the interface and game play of modern computer games, the next generation of mobile communication devices or the integration of computational technology into our everyday things, such as ‘intelligent clothes’. Regardless of application area, a design perspective on the interaction between people and technology is central. This makes interaction design an increasingly important area in application and systems development, as well as in industrial and product design.”

The program of Interaction Design at the Department of Computer Science and Engineering at Chalmers University of Technology/IT-university in Göteborg with whom we collaborated to introduce the world of public libraries to the students. They were given the task designing of prototypes for playful, educational techniques based on RFID applications that filled an actual or theoretical need in the public library. Many useful and fully realistic prototypes were launched and we could clearly see the great potential for new techniques in libraries.

The students identified the libraries as a meeting place that needed better conditions for matching people, they saw the need of making literature searches easier, information retrieval more play- and joyful and noted opportunities for using the RFID technique in storytents, detective hunts etc.

The cooperation with the the Arts and Communication Interaction Design at Malmö University and the Department of Informatics at Lund University, that started in the later part of the First Stage also continued. Three students were given the task of stimulating reading
with younger children and doing the search for literature more playful. Two installations were the result of this; “The Pageturner” and “The fairytale tent”. Development of “The rocket – a natural science project” will occur during spring 2008.

Summary of the project work of the municipalities
The public library in the Municipality of Uddevalla in Västra Götaland (50,000 inhabitants) wanted to make the area for young adults in the library more welcoming and adjusted especially to the target group. Reference groups of young adults were invited to consider a area specifically for them. What needs and wants did they have, what could they do there, what kind of atmosphere did they want, what type of furniture…?
A professional Stage Designer and Lightning Engineer from a county theatre made an outline for the area.
The result - is partly realised already; light, colour, artistic adornment and new furniture in the young people’s department. A 25 square meter graffiti painting was finished quite recently. And the large windows leave a perfect place with street views – a window to the world passing by…

The Municipality of Mölndal (58,000 inhabitants) just south of Göteborg in Västra Götaland is in the middle of developing a process where the library together with other cultural institutions and local retailers etc., will move into a new city centre built across the freeway in a junction where thousands of people pass every day.
The Mars Express way-of-thinking that has developed among the librarians during the project has set a deep mark also in the discussions between municipal civil servants during planning where the children’s librarians also participated.
During the three year project process the Mölndal librarians have been discussing the room with five year olds, challenged eleven year olds to plan their favourite library of the future and present the plans for their local politicians, tried prototypes made by Interaction Design students and are now awaiting “An interactive game room” – the final exam of an Interaction Design student doing his Master thesis.

The public library of the Municipality of Nässjö (29,000 inhabitants) in the County of Jönköping wanted to create a new passage in to the children’s department at the public library, “The transformator”. In collaboration with an artist/Stage Designer and The School of Engineering, The Jönköping University Lighting Design Department and The Wood Centre – an educational centre for working with wood and design.
A model was built that showed how colour, light and installations can create an environment that gives the child a feeling of expectation before entering the children’s department.
Completion of the project has been postponed as there is now the possibility that a new library might be built!

The public library in Gislaved (29,000 inhabitants) in the County of Jönköping has done a total make-over of their library - an integrated school- and public library. The new library was inaugurated in October 2007, with new, environmentally friendly surface materials, unique architect designed furniture, a room for workshops for children and teenagers and the entire collection RFID-tagged for circulation..
The children’s and young adult’s team has taken classes in narrative techniques and digital editing in order start developing digital book tips marketing books and reading.

The public library of Bromölla (12,000 inhabitants) in the County of Skåne wanted to renew their childrens and young adults department. Cooperation was initiated with Interaction...
Design Master Thesis students from the University of Malmö. After having interviewed reference groups with children the students developed two prototypes; the Pageturner – a computer program where children can search for books through titles and other variables and “Fairytale Tent where you can chose a recital of a CD-book and at the same time there will be a installation of lighting effects creating an suitable atmosphere in the room. A flexible stage with lights will also be installed during spring 2008.

The Municipality of Östra Göinge (14.000 inhabitants) in the county of Skåne is inaugurating a new library in the end of 2008 - in an old building that used to be a school house. The new library is to a large extent inspired by the project study tour to the United States – especially the Science Centre “New York Hall of Science”. With a natural science perspective and initially with focus on astronomy there will be a children’s and young adult’s department with a two-level space rocket constructed by Interaction Designers. The rocket will offer listening to some chapters of relevant books in the first floor and a variation of digital pictures of the galaxy will be exposed on the walls. On the second floor there will be interactivity with CD-rom and Internet resources such as a star chart etc. Of course, books and other media about astronomy will be displayed and made available close by. Books on astronomy will be easy to find in the computer catalogue and easy to locate with the help of light-marked shelves.

The entire staff will attend a course in storytelling aiming to train everybody in the art of telling natural science stories. A course in mime is also on the agenda – there is an ambition to use complementary types of communication.

Summary

After three years of intensive work and acquired experience, hundreds of participating children and young adults, study visits, conferences, workshops, consultative groups, practical work etc., there is a saying amongst us who participated in the project: we talk about a Mars Express “way of thinking”.

The project has led to a creative and dynamic approach to work among children, young adults and library staff in the participating municipalities. To start out from the goals of Mars Express and work directly with children and young adults has been a broadening and fruitful experience for the librarians and others involved. It’s important that each library make the children and young adults of their own feel they really are taking part.

Mars Express’ working team is a network, which has allowed library staff to grow and develop; professionally and personally. Most of the participants say that they have developed a new way of thinking about library development in the spirit of Mars Express. Study tours have created opportunities for inspiration and new knowledge. In many cases it has been possible to influence building or activity plans e.g. in Gislaved, Östra Göinge, Uddevalla and Mölndal. When Library Directors and childrens’ librarians have shared experiences from study visits and study tours, it has reinforced the importance of development and change within the library system. The study tour to the United States was a great source of inspiration.

Contacts with the Department of Informatics at Lund University, Arts and Communication, Interaction Design at Malmö University and the Department of Interaction Design at University of Chalmers are well established and still have a great potential. Contacts with Interaction Design education at Chalmers have led to course tasks and examination tasks focusing on library.
Libraries are an ideal official arena for ubiquitous computing.

Contacts between libraries and other professional skills have been established on a local basis. It has been possible to interest media locally, as well as nationally, in the developmental work done within the framework of Mars Express.

The participants have realized that constant observation of the surrounding world and professional trends is necessary to the development and survival of the libraries.

The project’s web site has played an important role during the project years: the documentation and experience collected there will be a considerable resource in the years to come.

Library Creator, a computer game, where children can, in a pleasurable way, choose library rooms to furnish was designed out by students from the Department of Arts and Communication, Interactive Design at Malmö University. This game has been used in another project as well, The Room as Media, a follow-up project to 2020 Mars Express.

Three national conferences have been arranged in connection with the termination of the project. Among other speakers we would like to mention Eva Eriksson, Chalmers University Interaction Design, Architect SAR and Architecture Pedagogue Stefan Peterson and last but not least Lois Kilkka, Service Manager and Michele Gorman Teen Manager, both at ImaginOn, Public Library of Charlotte & Mecklenburg County in North Carolina, the United States.

**What we as library advisors have learned during the project period.**
The collaborative spirit in which we library advisors have been able to work has been very rewarding and has increased the knowledge of each other’s regions, building a fine platform for further future collaboration.
The advisors have cooperated closely with the different project groups, which has extended knowledge about the participating libraries and local conditions.
The working methods have been different in each region, and this has been a strength.
The focus in each region has been different, complementary rather than competitive.
Three regions in cooperation have created a special dynamic as well as good opportunities to spread the Mars Express experience – regionally, nationally and internationally.

**From evaluations and our own experience we have learned:**

- It’s important to have a plan, but at the same time permit the project to be a process. Intermediate goals and direction can be modified along the way.
- Management should be involved and take responsibility in the project.
- Local project groups at the libraries are important.
- Participating libraries should, as far as can be judged, be in a solid organization.
- Communication must be clear and straight-forward at all sages of the project if misunderstandings are to be avoided.
- Let things take time. Allocate time for work as well as for reflection.
- Testing and failing is better than not trying at all.
The project should be firmly established in the whole region, not just in the participating municipalities, otherwise other libraries tend not to assimilate experiences from the project.

It is important - for future cooperative projects - to create some kind of common platform for participating communities

“This library isn’t only about books – it’s about having fun!”
This is how ImaginOn is presented and this spirit of joy, playfulness, activity and creativity was something we wanted to bring home with us.

“Do you believe all these libraries will remain?
And the answer is absolutely positive: that is not what it’s all about.
The question is: Do you want them to exist? Why could not the future be like that? Why not?
Because if we don’t create the future, we won’t experience it.”

“It’s just the children who can tell us what the future library looks like.”

Rob Bruijnzeels, initiator and project leader of Bibliotheken 2040, Holland

www.barnensbibliotek.se/2020marsexpress

Contact:
lo.claesson@jonkoping.se
anna.gullstrand@skovde.se
elisabet.hakansson@skane.se